GRUMMAN
plane news

1972

APOLLO 17:
END OF THE
BEGINNING

his tanker on receiving ship

KA-6D earns more Navy kudos

NASA gives go-ahead signal
on plans for space telescope

OAO launch set for August 21;
satellite dubbed 'Copernicus'

Tomcat production team readies
final assembly move to Calverton

Product Engineering saluted
for $16 million in cost savings

Apollo 16 astronauts set
for moon launch Sunday

Low Evans, dead at 51

Predict LST will unlock space
secrets 'beyond comprehension'

Adm. McClellan, NASC chief,
signals 'Well done!' on E-2B

Ecosystems begins NASA tests,
survey of Amazon area by P

Navy makes $9.8 million award
for A-6E long lead-time items

Bierwirth elected President of Grumman Corp.;
Spielman, Loar get top posts at Grumman Allied

Grumman, American Aviation to merge commercial air activity

Hawkeye in 'real world' test

Presentations on the move in Plant 5

Fire first Phoenix from Tomcat

Unveil TACRV, high-speed, air-cushioned vehicle of future

Grumman team not only lived history, made it, too

'I remember bucking rivets with Mr. Grumman . . . and Jake would go out for coffee for us . . .'

Joe Armstrong

Joe Armstrong, Permanent Number 33, was still somewhat awed by the party his friends put together for him on his retirement last month. With about 150 gathered to wish him well and retired Senior Vice President George Titterton in the catbird seat recalling anecdotes and the march of events (as only George Titterton can), it couldn't be anything but a swingin' occasion.

And now Armstrong was about to hand in his badge after 41 years with Grumman plus a couple of Loening and Keystone. A low-keyed guy, he is one of a big family of Armstrongs who left their imprints on the Company: Harry, Fred, and Bill, all now gone; their sister Marion, of Flight Test, retired and living in Amityville. Joe followed Fred Armstrong and David (Buck) Ketcham in the managerial slot in Plant 4.

Plane News flagged him down the other day to find out how he viewed the passing scene.

PN: How does it feel to be a part of history, starting with those pre-jet-age airplanes that are antiques now, and living with the development of spacecraft that have taken men to the moon? You've seen all this happen in 41 years with Grumman. How do you feel about being a part of such changes?

Long pause.

JA: It happened. I guess I just took the work in stride. For the daily routine, let's say I liked it better when we first started, when we all worked on everything.

PN: What was it like working in an aircraft plant in New York City in 1929?

JA: Different. The Loening factory was at the corner of First Avenue and 31st Street, facing on 31st, near where Bellevue Hospital is now. Right across the street from Loening was a dress factory, and as soon as those factory people saw the tail of one of our bombers come out for an engine run-up, they'd rush around closing all the windows. (Those big Liberties made a helluva racket.) And the factory windows were open to catch the breeze. No air conditioning then.

(Armstrong turned out to be one of the Loening "alumni" whose talents helped to make Grumman Aircraft Engineering Corporation what it became. After the Loening brothers, Grover and Albert, sold out to Keystone, the Grumman founders opened a shop in Baldwin. Some of the Loening men, however, did move to Bristol, Pa., with Keystone, and Armstrong was one of these.)

PN: Did you work for Keystone very long?

JA: 'Til August of 1931. I would stay in Bristol during the week and usually just come home to Long Island weekends. One Wednesday, though, I stopped in at Baldwin and asked if they had any openings. (It looked by then as if the Grumman Company might last). Mr. Grumman was doing the hiring and he said he could find a place for me. I told him I'd start Monday. "Can't you start now, today?" he wanted to know. "I haven't got any tools with me." I said. "Oh, that's all right. I'll get you some tools," he said. So I started the next day, and just never left.

PN: Was hiring the only thing that brought the executives of the young firm into contact with the shop personnel?

JA: We were a close knit company. I can remember bucking rivets with Mr. Grumman. He and Jake were often in the shop, in their shirtsleeves. Jake would go out for coffee for us. One time in 1935 there was a terrible hailstorm when the plant was in Farmingdale, and nearly all the panes of glass in our skylight were broken. We all spent the next day replacing the glass. Everybody. That's the way it went. I guess one of our problems now is that we don't get to know people.

PN: How do you recruit people who will work together like that?

JA: Well, a young man has to have incentive. Grumman likes to start with someone who has already had some airline or military experience. Then we have training classes—here or elsewhere. For the Gulfstream One we sent the engine men to Canada to learn the Rolls Royce engine. It has worked out very well; offers the young fellow a damn good future. It's the training that makes their future.

In Plant 4 we have people who can repair, who understand power plant, structural people—all the skills. An important part of the plant now is the Product Development Center, for building prototypes. You'd call it "Experimental" in the old days.

PN: What do you recall about the earliest Grumman planes?

JA: Well, I was working in all the plants, beginning in Baldwin and then Valley Stream and Farmingdale and, after 1937, Plant 1 in Bethpage. We built J2F Ducks, a lot of them. During World War II we were busy getting out the JRF, Navy version of the G-21 amphibian Goose. During the war we produced Grumman's Goose and Widgeon for the British and for our Coast Guard. Everybody on the aircraft did everything. No matter how professional a guy was, he'd be working on tails and every part of the plane. Not just the amphibians, but the fighters, too.

PN: Did you work on the Gulfhawk?

JA: Al Williams used one for exhibition flying. Yes, Russ Robarge and I worked on his. We simonized the wings. They really shone when we got through.

PN: You live in North Massapequa and you've traveled around. What are you going to do in your retirement?

He seemed to relax as he considered the question.

JA: I can keep busy around the house. Ask my wife about that. She's got a list, I've got a list. We've been to Florida, but we like Long Island. But I'll miss Grumman.

The people who worked with Joe Armstrong will remember him as a "regular guy," usually to be found on the shop floor or the flight apron in Plant 4, wearing the familiar flight jacket.

His associates have stuck with him: John Roth, assistant Plant 4 manager, "for 25-26 years, I guess"; Don Burden, plant administrator, 10 years; Joan Reid, secretary, 10 years—to cite a few. "Joe's modest, not pushy, but he got things done. Tell him your problem and he'd take it from there," says Perry Pavese, who headed Flight Development at Plant 7 and who is now in Corporate Suggestions, Plant 5. Says Don Burden with a chuckle, "Joe gets things done without making waves."

Spotlight on POWs

The spotlight that's on the American flag 24 hours a day at Grumman's Plant 18 carries more than usual symbolism: it focuses on the plight of U. S. prisoners of war and Americans listed as missing in action. Among those who attended the first day of the "lights on the flag" concept were (L to R) Capt. Bob Belter, Naval Plant Representative; Bill Zarkowsky, Vice Chairman of the Board; Mr. and Mrs. Peter Grubb (whose son has been missing since September, 1967), Mr. and Mrs. Eugene Perricone (whose son has been a prisoner of war since July, 1967), and Gene Simpson, whose idea it was to spotlight the flag until the prisoners of war return and the Nation knows about men missing in action.

Personal interest

Millions of Americans—and millions and millions of other people all over the world, in fact—were with the Apollo 17 astronauts in spirit when the three rode that giant firecracker into the night sky early on December 7. At least one person at Grumman had a special feeling for the spacecraft commander, Gene Cernan. Bob Kalmar, an instrumentation tech at Plant 7, knew Cernan in the Navy. Kalmar was then a plane captain in VA-113 and Cernan an A-4D pilot in the squadron. That was 10 years ago, but Kalmar stilll remembers.

GDS names DiFalco to head 'Grumman account' services

Early last week, when Grumman Aerospace sent STOP orders to its F-14 sub-contractors around the country, one of the firms most immediately involved was Grumman Data Systems. It wasn't because GDS, like Grumman Aerospace, is one of the Grumman family of firms; more importantly, it was because Grumman Data Systems is a prime vendor for computing services on the F-14 for Grumman Aerospace.

It may seem like a cozy arrangement, but Dominic (Dick) DiFalco sees it differently. Dick was recently named by GDS President Pete Viemeister to be the director of the Grumman account; in other words, DiFalco's responsible for GDS "living up" to all its contractual obligations for computing services to Grumman Corporation and its subsidiaries.

Dick DiFalco

"And anyone who knows Doc Tripp (Vice President and director of Corporate Systems for Grumman Aerospace)," says Dick, "also knows that when he buys services he wants them spelled out in clear terms — and he expects that all parties will live up to that contract. We like it that way, too."

The STOP action by Grumman Aerospace was a result of the Navy's decision to pick up its option on the Fiscal 1973 buy—Lot V—on the F-14 Tomcat, although the Company had been looking for a restructuring of the original contract. And though the contract disagreement directly involved Grumman Aerospace and the Navy, many, many other firms across the nation were more than casual observers. They had to be informed, and quickly, not to make any more parts for Lot V.

So it wasn't surprising that a crew at the Data Systems Center toiled through the night as a computer spit out the pertinent data that allowed Grumman Aerospace to put those STOP messages on the wire. That information came from a Master Material File, or MMF, for short.

Examine systems

Talking to DiFalco, a husky, fast-talking graduate of Fordham and New York's east side, it's evident that acronyms like MMF, ODS, and MODS are as much a part of his daily language as blitz, bump-and-run, and stunting are a part of a football coach's jargon. Something else seems even more evident: DiFalco really does think of GDS as a vendor, and for GDS to attract other Grumman subsidiaries to make use of its services, "we have to prove it's going to be cost-effective for them."

So rather than a cozy relationship, he's looking for a truer vendor-buyer relationship with other Grumman firms. One of the ways he hopes to achieve that goal is for GDS and its customers to examine computer systems and services step by step, a "walk-through" so to speak, so that the customer knows what to expect on a real-time operational basis, rather than only on a conceptual one.

DiFalco, who reports to Viemeister through Vice President Walter Wood, is banking heavily on the talents of a lot of other people who work for him to help improve that vendor-buyer relationship he's talking about. Among them are department heads Dave Holtje, Computer System Operation, Production Software; Bill Mueller, Application Software Development; Dan Larkin, Computer System Configuration, Systems Programming, Communication and Software Support; and Paul Arieti, Automated Telemetry Station and LM Data Reduction Station.

Service his business

Dick, who lives in Commack with his wife Mary and their seven children, joined the Martin Company in Baltimore after graduating from Fordham.

Two years later, in 1958, DiFalco headed back to New York to put his math degree to work for him at Grumman, initially in data processing on the Gulfstream I and A-6A (then A-2F) flight test efforts. Later he became more heavily engaged in computing technology and programming during tours at the LM Data Reduction Station and as manager of LM Data System Software. In January 1970, when the Grumman Data Systems subsidiary was formed, he moved along with most other computer specialists at Grumman to the new firm, and in September of that year he became head of Business Systems for GDS.

ODS, MODS, s t u n t i n g, blitzing. They're only "buzz" words, in a sense. But when Dick DiFalco talks about "service," he sounds as though he means it.

United Fund report

If you've been wondering whatever happened to the United Fund prize drawing, do not despair, it really will happen. But because of a late rush of payroll deduction cards and cash contributions, the list of participants at Grumman is being updated so that all may be eligible for the drawing for 12 home appliances. The drawing has been tentatively scheduled for January 16.

Should you want to be a U.F. contributor, and don't know how to go about it, contact your E.S.O. office, or call Ext. 3391.

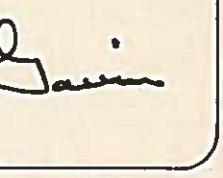
Holiday message

Here we are with another holiday season coming upon us. I suppose that if this tradition did not exist, we would almost have to invent it to provide a special time for appreciating friends and family, for adding up the events of the year gone by, and for making resolutions for the coming year.

Nineteen seventy-two has been a tremendously eventful year. The Lunar Module completed its last mission to set an unmatched record of complete success—and we were notified that we were not selected to carry out NASA's Shuttle Program. The F-14 has established itself in hundreds of Company and Navy flights as the finest known fighter in the world—and we are caught up in a financial controversy which has carried our name into newspaper headlines.

There is one fundamental reason, however, for having confidence in the future. You have demonstrated that you have the talent, the motivation, the resourcefulness, and the integrity to "make things work." The record of our products proves this to be the fact, whether we are talking about the Orbiting Astronomical Observatory or the EA-6B. We are in a very competitive industry; we are also involved in the reappraisal of national priorities. I believe that our programs are clearly in the national interest, that our products are sound, and that with continued determination we can press on to future successes.

I am optimistic. I hope you will all enjoy the holiday season and join me in a resolution to approach the new year with determination and confidence.



Heading home

. . . To Cleveland, N. C., is Linda Logan, who is completing a six-month stay with us at Plane News. Linda has been participating in the Grumman cooperative program for college students and is returning to Bennett College in Greensboro to finish her final semester before graduation.

We'll miss her. Linda has been generous in her assistance to the staff; besides writing a number of articles for Plane News, she has helped with ads, distribution, research, and filing . . . well, in any number of ways. Perhaps we shall remember her even more for her ever-pleasant disposition, her quick smile, and her ready response to—and defense of—anything touching on the women's-lib movement. Linda has provided us with a closer look at today's young people, and it was a reassuring one.

We in Plane News, for the many other friends she has made during her stay here, bid her au revoir.

C.U. booklet

The Bethpage Aircraft Federal Credit Union thinks modern. In a new flip (flop) booklet presentation on Credit Union services, the title comes out strongly: "What You've Wanted to Know about Bethpage Aircraft Federal Credit Union," and a note at the end reads, "Your Credit Union is deeply concerned with our environment and with the conservation of our natural resources. Since every ton of virgin paper requires the destruction of 17 trees, we have printed this brochure on recycled paper — paper made from used EDP runs, tabulating cards, and ledgers."

Would you believe the Bethpage Aircraft Federal Credit Union has about 24,000 members? If you don't belong, but might like to; give a jingle on Ext. 9042. The present dividend rate paid to CU shareholders is 6 percent.

MVS on the way

Have you heard of MVS? MVS — Manufacturing Verification System — has been in use at Plant 1 for a couple of months, and soon it will be instituted at other Grumman manufacturing plants.

In our next issue, the first in January, we will carry a feature article on MVS and how it has affected the traditional relationship between Quality Control and Production.

Apollo 17 crew returns with richest lunar yield

Capt. Gene Cernan, scientist-astronaut Dr. Harrison (Jack) Schmitt, and Cdr. Ron Evans—the men who flew the last of the historic Apollo missions—were to have splashed down safely in the Pacific as Plane News went to press.

The men in the Apollo Command Module brought back to earth the largest and most varied collection of lunar soil and rocks ever gleaned in a single mission. And in the package, too, are hundreds of photographs of the moon and data from numerous experiments made as Evans was orbiting the moon.

Scientists have said that it will take years to analyze all the material discovered during the manned Apollo missions. It would probably take years, too, if scientists were to narrow the job to just this Apollo 17 LM-12 mission, the most productive of all.

One of the tasks of the moon-walkers, Cernan and Schmitt, was to find samples of both the oldest and the youngest moon materials, and apparently they met with success: their time calipers measure the oldest at 4.25 billion years, the youngest at 3.1 billion years.

Certainly exciting was the discovery of red and orange soils among the predominantly grayishness of the lunar terrain. Later, when they were back in the Command Module orbiting the moon again prior to heading their spacecraft on a homeward course, they observed larger sections of this red and orange soil.

Many others found the discovery exciting, too, and geologists and scientists immediately started cranking up their hypothesis machines. The opportunities were delicious; ideas popped like star bursts in all quarters of the globe. Dr. Paul Gast, for one, theorized that the red and orange material might indicate a "gas vent, which was active at least 500 million years ago," in which case there had been a time when the moon was "hot enough to drive gases out of the interior. This fits the theory that the moon had a partially molten core." And he said: "So for the people who said the moon is dead, the answer is—not quite."

Moon theory

Other scientists, such as Dr. William Muehlberger, the principal investigator for the mission, suggested that the Taurus-Littrow landing site was part of an area in which lava once flowed. That, of course, supports Dr. Gast's notion. Certain to come are other theories of when and how the moon was formed, how the moon became so pockmarked, what materials lie entombed within it—indeed, literally hundreds if not thousands of questions to be answered before man knows fully what his satellite is.

However, that may be, Cernan and Schmitt — walking, hopping, riding in the Lunar Roving Vehicle—did an impressive job. They harvested about 240 pounds of lunar rocks and soil, drove the LRV some 20 miles, and successfully carried out all of the on-moon exeriments except one; and that one failure occurred because of a faulty gravimeter. In their three seven-hour EVAs (Extra-Vehicular Activities), they contributed greatly to the "model" of the moon that scientists are endeavoring to build.

This last of the LMs (called Challenger) was, of course, jettisoned; and later, by plan, it smashed into the moon to set up a kind of "moonquake." It was useful to the very end. That LM, as the others, was a marvelous machine. Gerry Griffin, NASA Houston Flight Controller, said what was on a lot of other people's minds:

"I'd kind of like to take my hat off to the Grumman people. I think they're to be congratulated on this vehicle."

It is remarkable: 12 astronauts walked upon the moon and returned safely . . . because of LM. Another LM served as a "lifeboat" and brought three astronauts home safely after an accident in space. All this should not be forgotten. The LM never let our astronauts down.

Views Apollo

Robert Hotz, editor-in-chief of Aviation Week & Space Technology, remarked in an editorial December 11 that the "tremendous decade of progress in manned space flight" that ended with the splashdown of Apollo 17 signifies "an historic watershed in the annals of man. These Apollo voyages to the moon were without question the boldest, most imaginative and technically complex achievements of man and, as such, added a dimension to the human spirit that cannot be fully measured for decades."

The benefits, he contends, "are shared by all mankind." Of many, he says, three stand out:

"Development of new technology faster and on a far broader front than is generally realized."—"Creation of a cooperative blend of engineering and scientific effort that appears to have begun bridging a divisive gulf. . . . "—"Creation of a management capacity in both government and industry for marshaling vast resources to focus on a specific goal to achieve results within a limited time."

He says that "The Apollo program proved what man can really do when he sets his mind to a goal. The exploration of space will continue beyond Apollo and become a permanent part of man's curious quest for more knowledge of himself and his universe."

Mission Support. **Back-up crew at Plant 25 Mission Support Room followed flight of Apollo 17 and the Lunar Module's landing with high interest, culminating in happy exclamations when 'touchdown' was announced by Gene Cernan.**

J. L. Avino | R. L. Valentine | G. G. Ford Jr. | J. Mauceri | E. S. Matthews Jr. | H. A. Vest | J. J. DeDe | R. N. Hembach | G. A. Fowler

service milestones

35

William Vrana, Small Pts. Fab. (3)
Ralph C. Barth, P/S Cust. Order & Rec. (15)

30

Donald A. Pilling, Crit. Mtl. Ctrl. (1)
Harry J. Marx Jr., Equip. Lines (1)
Alphonso V. Emanuele, Steel Pts. Assem. (2)
Harold F. Bubek, Dtl. Pts./Tool Fab. Mgmt, (2)
Joseph Micco, Proj. Proposals (2)
Edward J. Spuhler, Assem. Meth. & Plan. (2)
Stephen T. Grandner, Plant Stores (2)
Walter J. Harrison, Machine Shop (2)
Henry Rockhill, Mfg. Test Plts. Mgmt. (3)
Robert L. Mohr, Ind. Engg. - Crewload (4)
Everett J. Baldwin, Space Mgmt. (5)
Philip Fisher, Maint. Admin. (5)
Charles W. Piat, Alighting Gear/Arm. (25)
John Siarkowski, Research (26)
Patrick D. Towey, Plant Stores (27)
George C. Hennings, Crit. Mtl. Ctrl. (30)
Theodore J. Campbell, Invent. Ctrl. (30)
Rasmus J. Rasmussen, Prog. Mgmt. Out-of-Prod. (35)
Stanley J. Grywinski, P/B Warehouses (37)
Lewis F. Smith, P/S A/C Sys. Serv. (57)
George H. Fischer, Quality Ctrl. (88)

25

John J. Avino, Plant Stores (1)
Robert L. Valentine, Small Parts Fab. (2)
George G. Ford Jr., Steel Parts Assem. (2)
Jasper Mauceri, Hydraulics (2)
Elbert S. Matthews Jr., Assem. Meth. & Plan. (2)
Harry A. Vest, Jig Details & Sub-Assem. (2)
John J. DeDe, Insp.-Mech. (2)
Raymond N. Hembach, Small Parts Fab. (3)
George A. Fowler, Wing Final Assem. (3)
Albert V. Ciota, Stock Ctl. Mgmt. & Staff (3)
Joseph T. Montello, Wire Prep. (5)
John A. Stamm, Plant Stores (6)
Joseph J. Hyde Jr., Trans. Oper. (20)
Robert J. Lang, Trans. Oper. (20)
Frederick W. Wright Jr., Trans. Equip. Maint. (20)
Nelson C. Handshaw, Fuse. Join. (27)
Victor A. Agnitti, Sub-Assem. (27)
Jerome T. Buscemi, Mach. Parts/Matl. (30)
Edward R. Yurkerwich, P/S A/C Sys. Serv. (75)

20

Francis Nelson, Maint. Rearrang. (1)
John Rock, Router & Shear (2)
Edward V. Libretti, Form Block (2)
Gerard T. Murphy, Engraving (3)
Bernard Sadowitz, Honey. Prefit. (3)
Muriel Leighton, Exec. Staff (5)
Thomas D. Fox, Meas. Stand. Lab. (12)
James P. O'Grady, P/S A/C Sys. Serv. (15)
Raymond J. Ingemarson, Receiv. Insp. (17)
William L. Jankowski, Crit. Mtl. Ctrl. (24)
George W. Bauer, Spec. Tools & Meth. (27)

15

Frederick F. Donohue, Conf. Data Mgmt. (5)
Albert S. Bozek, Maint. Rearrang. (12)
Katherine E. Wollstadt, Cntl. Prop. Disp. (17)
Robert F. Joyce, Personnel Admin. (28)
George J. Logan, Maint. Trans. (55)
John R. Stafford Jr., P/S A/C Sys. Serv. (95)
Robert L. Wilkens, Prop. Account. (30)
Homer C. Reynolds, E-2C Wings (77)

First flight mosaic at Dayton

Roy Grumman has joined an elite group in the Aviation Hall of Fame at Dayton, Ohio. During the festivities on December 15 when Grumman and two other men joined America's air greats, there was another dedication of sorts at Dayton, this one being for a first flight mosaic that was set in the Dayton Convention and Exhibition Center.

According to DAYTON, USA, "the mosaic takes on the appearance of a huge sepia-tone photograph of the historic first flight of the Wright Brothers. When the viewer moves closer, however, there is a startling realization . . . the scene is no longer there. Instead, this one-of-a-kind, artistic achievement resembles some kind of avant garde network of strong vertical and horizontal patterns.

"The intriguing, endless arrangement commands closer inspection. Eyes cannot focus on one area alone or even comprehend the patterns engulfed by more than 163,000 separate and distinct images. But these very images, each fired on a one-inch square of ceramic tile, and their direct relation to each other are responsible for the composition of the lifesize mosaic mural . . . "

So what does this have to do with Grumman, you're asking? The mosaic was developed for the Aviation Hall of Fame under the direction of Read Viemeister, president of Vie Design Studios in Yellow Springs, Ohio. Read's brother Pete is President of Grumman Data Systems.

Gave 'Superman' an assist

Superman has a jump on ordinary earthlings, and Pete Simmons, Grumman's director of Space Astronomy, gets credit "for technical assistance" in the December Action Comics magazine. Lo, on page 1 we find the Space Shuttle Orbiter releasing the Large Space Telescope that Grumman hopes to produce for NASA in this decade. In balloon blurbs on the page Clark Kent is saying, "I'm in orbit with NASA's space telescope, the LST. Here, well above the haze of our atmosphere, astronomers will get a crystal-clear view of the stars and planets!" That's how a million kids learn about space developments—before they happen.

A. V. Ciota | J. T. Montello | J. J. Hyde Jr. | R. J. Lang | F. W. Wright Jr. | N. C. Handshaw | V. A. Agnitti | J. T. Buscemi | E. R. Yurkerwich

'Ace' high on Tomcat
First Prowler landing
E-2C trainer
Gavin new Aerospace President;
Bierwirth gets top corporate post
Unveil train of the future . . .
Wind up Hawkeye NPE trials

1972
The Year in Review

1972—a year that challenges perspective.

There were shocks and disappointments that struck deep into the heart of the Company. First came the death of Lew Evans, Sunday, July 9. Just 17 days later, the Company lost in its bid to become prime contractor for the Space Shuttle. And a few days ago, on December 11, the Company's hopes for a restructuring of the F-14 contract were denied by the Department of Defense—though the Company is still endeavoring to work out a solution that will be mutually agreeable.

And as that was happening, the last of the Apollo missions was in action, and soon to end its flight in the Pacific Ocean. The pessimists had sufficient to feed on . . .

Yet, it was not Gotterdammerung. The signs of health—indeed, of vigor—were there to see, if one wished to look in those directions: the sound performances of Tomcats, Hawkeyes, Prowlers, and Intruders; the somewhat astonishing records of two OAOs (Orbiting Astronomical Observatories); the growth of commercial aircraft by the planned merger with American Aviation to buttress the successes of the Grumman Gulfstream II and the Super Ag-Cat; the growing business of Grumman Data Systems, Grumman Allied Industries, Inc., Grumman Ecosystems Corporation, and so on. True, to be Pollyannish would be erroneous. But just as absurd would be to endorse Santayana's gloomy dictum, "Reserve a part of your wrath; you have not seen the worst yet."

Corporate shock wave

It is probably true, though, that the "average" Grummanite sees 1972 as a darker year than usual, and it may be that in great measure that is a response to the felt loss of Lew Evans. It is a subtle, almost mystical quality to some; an almost tangible remembrance to others. For it was easy (some thought) to see Lew Evans as he truly was—such was the "drawing power" of the man. We **knew** him just by meeting him, watching him, listening to him. But in looking back, a question can be posed: did we know him . . . or did he convey something to us, something ineffable.

One of the talents of true leadership, some have said, is the ability to bring people with you as members of the family, so to speak. There's an ease and comfortableness about it all. As Plane News expressed part of it in its memorial issue:

"He came well prepared for his task. Warm, gregarious, bright, spontaneous, charming, articulate. He was all of these. Irreverent, candid, salty, caustic, impulsive, contradictory. At times he was these too. Yet, singly or collectively, these traits didn't quite capture the essence, the magnetism, of the man.

"Magnetism he had. And purpose. You could sense it."

So he was certainly a complex man, a man on the go, a man whose devotion to the Company was exceeded only by his love for his wife, Jo, and his family.

His impact on Grumman was, and remains, great.

Choosing new leaders

What might have happened had Lew lived is, of course, idle speculation. And at the time of his death, the questions had to be of different form: How best to keep the Company moving, with minimum break in time-product flow. Who best to guide the ship. Top-level moves came rapidly:

- Clint Towl, Chairman of the Board of Grumman Corporation, was elected President of Grumman Corporation, and four days later, Board Chairman of Grumman Aerospace, both posts held formerly by Lew Evans.
- Bill Zarkowsky, who had been President of Grumman Aerospace, moved up to become Vice Chairman.
- Joe Gavin, who had been Senior Vice President in charge of all space programs, was elevated to the Presidency of Grumman Aerospace.
- John C. Bierwirth, a Director of Grumman Corporation, and who had

been executive vice president of National Distillers, was named to be Vice President-Finance for Grumman Corporation. Later, on November 22, Bierwirth was elected President of Grumman Corporation, a post Towl had held since Evans' death.

So, the Company reacted quickly, decisively in the period immediately after the loss of Lew Evans . . .

It was most unfortunate for the "Corporate psyche" that within a matter of a few days the National Aeronautics and Space Administration (NASA) ranked Grumman's bid for the Shuttle second-best, apparently by a thin margin. But second-best isn't enough, and justifiable pride in the Company's efforts had to be replaced by something else: a determination to become a major subcontractor.

"We're looking ahead, not to the past," Vice President Tom Kelly said at the time. "We believe we've got the best team in the business, and we intend to be part of national space programs."

Kelly realistically remarked "It won't be easy, and it's natural that we've suffered an emotional let-down. But we know from the debriefings that we had a first-class proposal—one of the finest proposals we've ever turned out. And everybody in the Company got behind it. It showed. NASA saw that and said it was a superior effort. Everybody who worked on the proposal should be proud . . . very proud."

So more proposals had to be cranked up; and they were. One was a funded study contract for a Shuttle Training Aircraft (STA). In the competition along with Grumman were Lockheed, Boeing, and General Dynamics. Grumman and Lockheed won and are now preparing studies. The winner is to be selected before mid-1973.

Whoever comes in first gets the crack at building two trainers that would precede the Space Shuttle Orbiter's first flight by roughly a year. However, that's merely one part of what the Company hopes to work on in the Shuttle area.

In addition, Kelly mentions that other possibilities for Shuttle work include such major components as the vertical stabilizer, wing, mid-fuselage, and the orbital maneuvering system.

Tomcat: flying irony

Of concern, too, is the rather strange case of the F-14 Tomcat, a flying irony. Here is an aircraft program that's proceeding extraordinarily well—and yet, it's under attack. The anomaly is striking. On the one hand is this rather typical assessment of the Tomcat's progress, in this instance voiced by Capt. Clyde Tuomela, the deputy Program manager of F-14 Test and Evaluation for the U. S. Navy:

"It is rare when anyone in the testing community passes out a 'well done' on good performance." He went on to say that "In a 16-day period (at Point Mugu, Calif.), the Grumman test airplanes flew 49.6 hours, and in 17 days the Hughes airplanes flew 51.1 hours. At this stage of the development, it is most impressive to have airplanes flying such hours with full weapon systems in operation. The culmination, or proof, of this full weapon systems capability was dramatically demonstrated with a multi-missile launch at multiple targets. This fact alone should give all concerned a great feeling of satisfaction. In a simple term, it has never been done before. It is this overall feeling of achievement that should be felt by everyone who has contributed to the NPE (Navy Preliminary Evaluation)."

Quite similar judgments were made during the two NPEs conducted at Calverton. Cdr. Bruce Ashley of NATC Service Test, Patuxent River, Md., for example, termed NPE II "A significant improvement in airframe and engine combination over NPE I. A particularly outstanding effort by all Grumman personnel."

Perhaps more to the point—in view of the crash of the first Tomcat—the estimated aircraft time line from first flight to BIS (Board of Inspection and Survey) trials is good: Over the past 20 years only one other aircraft progressed as rapidly, and that plane was simple as compared with the highly complex Tomcat.

Despite all this, Grumman found itself in the hole on Tomcat. As President Joe Gavin said December 11:

" . . . Grumman Aerospace Corporation received a letter from the U. S. Navy to exercise an option for 48 F-14 aircraft to be procured in Fiscal Year 1973. We advised the Navy that we will not proceed under that option, and regretfully we instructed that no further work will be performed with respect to the Fiscal Year 1973 F-14 procurement."

Some of the reasons for this decision include, said Gavin:

"Our legal counsel feels that the action exercised by the Navy does not comply with terms of the contract and cannot be legally enforced.

"The terms of the option are such as to seriously threaten our ability to remain a healthy producer of defense hardware.

"The causes of the contractual problem . . . have been beyond our control, namely, extreme inflation and the reduction in Government procurement that has taken place . . . since the original contract was signed."

As for what's next, Gavin said that " . . . it is our intention to continue all efforts to achieve a reasonable and equitable solution to the F-14 contract."

Great flying machine

On the happier side of the ledger (though it's sad to see the end of the Lunar Module and its parent, the Apollo Program), one's amazed at the record of that great flying machine, the LM. What performances it has put on! They border on the fantastic. Nine consecutive times it's been called upon; and it's the only major component of the manned space-travel world to meet that test all the way.

It did the job first in March of 1969 in an earth-orbit role, then on a lunar orbit assignment. And in July 1969, it started its string of seven successive successes designed for lunar landings. In six of those cases, a pair of astronauts landed on the moon. In one case the LM became the "lifeboat," the vehicle that brought the three astronauts home safely despite an accident in the Command Service Module that cut electrical power.

And there has to be a special pride

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1972 The Year in Review

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in those hundreds and hundreds of Grummanites who worked on LM over the years. And now, after LM's last flight—the most superb one of all—they have indisputable proof that each LM got to be a little better than the one preceding, and LM-12 —Challenger — was "unbelievable."

Also, noteworthy successes in our military aircraft programs have been chalked up. As a for instance, the E-2C Hawkeye, that's reported as "running like a Swiss watch." The same evaluation could be made in the case of the EA-6B Prowler, which joined the Fleet during the summer. And certainly, the A-6s continue to perform their all-weather attack missions effectively.

Also, two OAOs, or Orbiting Astronomical Observatories, are functioning in space. The incredible OAO-2, designed for a life-span of one year, is still doing its job—after four years and 21,064 orbits And since August 21, it's had a sophisticated companion in space, OAO-C, dubbed Copernicus. On the basis of Copernicus' record thus far, it seems to demonstrate the feasibility of NASA's planned three-meter (120-inch) Large Space Telescope (LST) satellite.

Coming back to a more earthly realm, but still flying, is a proposed merger of Grumman's commercial aircraft efforts (Gulfstream and Ag-Cat) with American Aviation — to be known as Grumman American — in order to increase the new company's share of the general aviation market. And in this climate, Ag-Cat sales have been brisk and GII sales are climbing. This is wholly in line with the determination of Grumman Corporation to diversify. As President John Bierwirth Jr. expressed it some months ago, "We have to try and get better balance between commercial and aerospace sales to provide better future stability. In a billion-dollar sales company, for example, 250 or 300 million in commercial sales would give a better balance."

Commercial spin-offs

Of course, such diversification has been going on: Grumman Data Systems has been making gains and has developed something new, MASSTAPE, an on-line, high performance, modular mass memory system; Ecosystems has won a contract from New York State's Atomic and Space Development Authority (ASDA) to determine environmental considerations pertinent to offshore siting of nuclear power facilities in the New York Bight, is pursuing water-quality mapping for NASA, mapping in Peru, and—through its subsidiary, Puritech Industries, Inc. — is working on sewage plants; Grumman Allied Industries is involved in marketing its Motorhomes, modular buildings, Pearson Yachts, Grumman boats and canoes, and Olson Bodies; and Health Systems is actively developing technical equipment in the hospital field, such as the Mobile Intensive Care Operating Table (MICOT) and the Female Cancer Detection Mobile Unit. And in the rapid ground transportation field, the Company has produced subway-type vehicles for the Seattle-Tacoma International Airport and built the TACRV (Tracked Air Cushion Research Vehicle), which is now undergoing evaluation at the Department of Transportation's test site in Colorado.

It's quite true, then, that new branches are sprouting from the Grumman tree.

Part of the "sprouting" has been organizational, and beyond or unrelated to the death of Lew Evans; much of it has been occasioned by changing needs in the Company, the ever-present requirement for improvement through change. In late November, for instance, Towl gave up his position as Board Chairman of Grumman Allied Industries and was succeeded by Wallace B. Spielman. Bob Loar then put on two hats: President and Treasurer of Allied Industries.

Other Corporate moves

There was a big change in Grumman International, too. Robert Lee Townsend. deputy to the Chief Executive Officer of Grumman Aerospace, became President of Grumman International as well.

Four other men moved up to top posts: Pat Cherry, former Treasurer of Grumman Corporation, assumed the newly created job of Vice President-Controller; Bob Freese, Assistant to the Treasurer, became Treasurer; and John M. (Jack) Buxton and L. M. (Butch) Satterfield were named as Vice Presidents of Grumman Aerospace Corporation. At Grumman Allied, Wells Darling, Bob Farren, and Bob Somerville were named Vice Presidents.

Skills still strong

So, by year's end, there were new faces in Grumman, and changes of command. There were achievements and disappointments. There was a fade-out of an old program, and the development of new ones. 1972? Pluses, minuses, memories, hopes . . .

But perhaps the focus should be elsewhere, pointed toward the future — with full awareness that the extraordinary skills that made Grumman strong are still here. As Joe Gavin remarked recently:

"I think the outlook is optimistic, and that we're fortunate in having an outstanding group of product lines. I think that our reputation—and I think that everybody has to remember this—**our reputation depends on what we're doing today.**" And:

"Your reputation really depends to a large extent on what you're going to do next as well as what's you've done before."

Voigt wraps 255, 220 into 668 prize package

Could it be the holiday spirit — or spirits — that's causing the pins to be toppling so easily in many of the GAA leagues the past couple of weeks? Take the Black loop. Bill Voigt fashioned a record 668 there with games of 255 and 220, and 600s haven't been that easy since action started in that circuit this fall. Bob Specht was another guy who hit it big: he had 203, 213, and 210 for a 626, while Joe Russo hammered out 607 on lines of 224 and 200. Some other high scorers: John O'Hanley, 214-200-585; Sid Weihs, 228-582. John Lampasone, 201-581; and George Fowler, 211-591.

And it may sound like a broken record — although no **real** records got broken this time—but Rudy Dunkley has been at it again in the Bethpage Owl league. Rudy put together lines of 235 and 214 to close at 642 to head a list including Pat Amoroso, 202; Peggy Kolody, 476; and Gene Piwowar, 212 . . . Togetherness, it's wonderful. Bill and Nancy Gentzlinger picked up high game laurels in Century Mixed play, and this time Bill beat out Nancy, 215 to 214. Mary Kallansrude reached 536 and Mark Guss, 567. Earlier, Joan Bussolini, 190, Howard Miller, 214, Helen Miller, 498, and Phil Musa, 534, highlighted action.

That man again

Bob Dudonis was on a tear the last two sessions of the Classified league. Bob clipped together 201 and 234 and finished at 624, then added 219-233-640 the following week to put the Mustangs within striking (galloping?) distance of the Tenpins. Joe Whelan threw 201-238-608, John Herman, 203-205-607, Jim Karika, 222-591; Bob Hoehn, 204-214-576, and Jack Tilford, 227-562 . . . Most presidents get their own way—after a little persuasion—in their own organizations, but not so in a pin loop. So it must have been somewhat gratifying for Dom Bello to find himself at the top of the list of the Rocket league recently with 590 after games of 201 and 202. He couldn't veto John Proscia's 219 high, but he did lead Tom Kelly's 528, Proscia's 573, Dennie Gensinger's 221-558; and Charlie Stumpf's 213-559.

He had fun

Joe Gallo has a sense of humor that would qualify him for "Laugh In." In a recent edition of the Aerospace league, all Joe did was throw a record 636, assisted by games of 211, 212, and 213, and, aided by his Jester teammates, swamped the Foul Four 23-4 to take over second in the standings. A pail of cold water would have been kinder. Tom O'Connor's 562 aided that rout. Other pin standouts in the round included Joe Schwab, 208-201-574; Joe Aquilino, 562; Fred Johnson, 223-549; and Ed Lomot, 558 . . . And don't try to give Bob Washington any of that Samson bunk. You know, the guy who lost all his strength when his hair was sheared. Why, Bob had trouble finding the pocket when he wore his hair mod, but soon after he cut off his locks—Voila! — he put together 219-598 to lead Trader loop scoring. Mickey Rooney collected 212-583, George Landin, 203-569; Ken Smith (the senior one), 213-565; Sal Sclafani, 220-562; and Slats Salantri, 562.

Duel in Masters

Marty Fried fired 257 to push the Demons near the top of the Masters loop, and the following week, team mate Dick Spalding contributed 808 to put the squad in a tie with the Raskals for the lead. The Raskals' Fred Skirde shot 246-776 in that action, but the high men in the listings were Vin Crevoiserat and Ike Washington who both totaled 817 for four games. Vin got help from 247 and 235, while Ike's high was 226 . . . Hawkeye Mixed leaders were Tom Cava, 205-216-616 and Lee Newcombe, 206-521. Other highlights: Vin Crevoiserat, 201-209-577; Arlene Schwemmer, 172-472; and Diane Felczak, 197-476.

Round up

Rounding out the top scores: **Syosset Mixed** — Monica Wojtyniak, 232-568 (series record); Rita Mathia, 554; George Bunzel, 549; John Betterino, 204-554; Allan Kane, 223, Ed Miron, 544. **Red** — Ernie Maas, 231-608; Joe Vosefski, 220-589; Phil Musa, 227-571. **Patchogue Mixed** — Joan Burgess, 203-538 (series record); Virginia Geer, 500; Dave Struller, 204-524; Ken Becker and Dick Lindstrom, 534. **Woodbury Mixed** — Marie Prochaska, 03-5112; Marthue Juppe, 494; Bll Lawson, 211-523; Jack Juppe, 224-565. **Blue** — Mike DeAngelo, 213; John Feeney, 539; Joe Morrison, 525.

CALENDAR of events

Notice of events for period Jan. 12-26 should reach Plane News by Jan. 5.

Coin Club: Every Wed., 12:05 p.m., Vendor Conf. Rms., Plt. 25. informal lunchtime meet. Ken Hale, Ext. 1936.

Dance Club: Beginners, Tues. evgs., 8:30-10 p.m., St. Francis of Assisi, Northgate & Clay Pitts, Greenlawn; intermed. Thurs. evgs., 8:30-10:30 p.m., Portuguese Amer. Hall, 306 Jericho Tpke., Mineola, $2/session. Len Luke, Ext. 1438.

Duplicate Bridge Club: Every Thurs., 5:45 p.m., Plt. 18, ACVL sanctionn, partner guar. Dan Panshoukian, Ext. 2798.

Ex-Servicemen's Club: No meet. until further notice. Vet's counselor avail. alt. Thurs. in Jan., Plt. 2. Bob Regan, Ext. 2814.

Family Campers: Sat., Jan. 7, 1973, 5 p.m., Plt. 18, Guard Hdqtrs. Bldg., reg. mo. meeting, open to outsiders. Herman Heinlein, Ext. 2891 or 86728.

Fencing Club: Mon. & Thurs., 5 p.m., Plt. 30 cafe, instruc. & competition. George Regney, Ext. 7541.

Flying Club: Fri., Jan. 12, 5 p.m., Plt. 28, FAA film, guests welcome. Betty Schledorn, 6827.

Retiree Club: Wed., Dec. 27, 12:30 p.m., Holiday Manor, annual holiday party, install. of officers, open to guest of members. GAA, Ext. 2269.

Rod & Gun Club: Wed., Jan. 31, 7:30 p.m., John's Oasis, Hazel St., Hicksville, ann. meet. J. Crawford.

Stamp Club: First 3 Wed. of mo., 5 p.m., Plt. 30 cafe, circuit book sales, swap, auction, gen. dis., new members & guest welcome. E. Manaker, Ext. 3513.

Bill Voigt

Golds outdrawn in pistol match

The ranks of the undefeated in the L.I. Industrial Pistol league were thinned once more as the Grumman Gold squad lost a 1,091-1,098 encounter to Pan Am B in the expert division. Ron Trenker shot 278 and Nick Evangelides fired 273, Hank Chau, 272, and Steve Jacobs, 268, but that wasn't enough to keep the Golds from tasting—and bitter it was — their first loss in the loop.

A week later the story ended on a sweeter note for the Golds as they socked it to their brother Grummanites, the Grumman Ds, in.22 caliber pistol action. Trenker scored 275, Chau, 271, Phil Boehm, 264, and Herb Wolter, 263, in the 1,073-1,035 victory. Dave Rice's 265 and Roger Seybel's 263 were high for the losers.

In the continuing serial—its so sad it sounds somewhat like "General Hospital," Grumman lost once again, this time in the South Shore League where the guys use those big guns, .38s and .45s, or center-fire competition to the more knowledgeable. Rice fired 260, Art McKee, 275, Greg Criscione, 257, and Boehm, 249 as Grumman got shot up, 1,103-1,023 by Roslyn. Back to the firing range, fellas.

Costanzo top pitcher in 34E 'shoe play

It takes only seconds sometimes for news stories to flash around the world — those h i g h-flying communications satellites, you know — but when the event happens only a few miles away, it might take weeks . . . or months . . . for the story to hit the paper. And so it is with some embarrassment that we are now announcing the winners in the Plant 34E horseshoe championship, even though snow has been falling in the northland for some time, and the weather on Long Island isn't what you'd call conducive to horseshoe pitching.

Bill Costanzo earned the top spot in singles competition at 34E and Bob Knatz and Jack Gompers took the doubles title. Now, that didn't take long, did it?

GAA planning for first ski trip

The weather should be a mite more predictable in January, so how about signing up for a GAA-sponsored ski weekend January 26, 27, and 28. Ski at Powder Ridge and Mt. Southington, stay at Howard Johnson's in New Britain, Conn. There will also be a trip offered February 23-25.

Price per person for the January trip (including equipment rental of $5) will be $55.50 (four in a room); $60.50 (three in a room); $65.50 (two in a room).

Price includes transportation from Plant 3 northwest corner of parking area leaving 6 p.m; transportation to and from ski slopes; deluxe accommodations with color TV and private bath; snack and beverage on arrival; breakfast and dinner daily; ski instruction (minimum of two hours daily); facilities for both expert and beginner; use of ski equipment; get-acquainted fondue and wine party; use of indoor pool; nightly dancing; all tips and taxes.

The group will be personally directed and escorted. For information call GAA on Ext. 2133 or 2269.

Hellcats flying in hoop circuit

Although they chose the name of one of Grumman's old-time fighters, the Hellcats are acting like supersonic fighters in the Huntington Athletic Club League. After four games in the loop, the Hellcats show a perfect record, the last two victories coming on 65-25 and 70-69 decisions over Food Fair and The Veterans, respectively.

Food Fair provided a tasty menu for the Grumman team. Stan Mazur and Walt Gleich kept the Hellcat attack moving as Jim Washington scored 15 points and Jim Cruthers contributed 10 in the 40-point romp.

It wasn't as easy in the next game. In what turned out to be the wildest and most hectic game of the season thus far, the Hellcats barely scratched out a one-point margin over the Vets, 70-69, overcoming a 12-point deficit in acquiring the victory.

John Ebron—he's called "The Jumper"—and Larry Williams helped the Hellcats overcome that 12-point gap in the third quarter with strong rebounding. It was tied going into the final stanza, but some heavy scoring by Frank Quarto (22), Cruthers (14), and Ebron (13) helped turn the tide. Helped. When it got down to the final moments, it was four clutch foul shots by Jim Washington that proved the difference.

Old habit

In Grumman league play, the Newcomers look like they're starting where they left off last season—winning. They opened the league with a 79-61 victory over the Tomcats, with Frank Quarto hitting for 34 points, Vince Clerico, 16, Lee Gendron, 14, and Al Bauer, 13. Bob Wilson totaled 21 for the 'Cats.

Quarto netted 21 points to lead the Newcomers' 92-77 win over the Druids.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.
Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

For Rent

APT: Nr. Plt. 30, 3 rm. 938-5972, after 5 p.m.

APT.: Freeport, lrg. studio, sleep. alcove, walk-in-kit. & closets, conv. to RR & Pkway., immed. occup., $205/mo. 935-9696.

ROOM: Newly furn., pvt. bath, nr. Grumman. 796-8106, after 5 p.m.

APT.: 2 bdrm., lrg. kit., 2 fam. house (upstairs), nr. Great So. Bay Shop. area. MO 1-6308.

ROOM: Bethpage, furn., pvt. entr., gentleman, share bath. WE 5-1719, after 4:30 p.m.

ROOM: Nr. Grumman, newly furn., pvt. bath. 796-8106, after 5 p.m.

APARTMENT: 4 rm., priv. entr., w/w, utilities incl. 842-4683, after 5 p.m.

APARTMENT: 2 furn. rms., bath, kitch. util., priv. entr., walk to Plt. 1 & stores, gentleman preferred: $150/month. WE 5-4858.

STUDIO APARTMENT: Furnished single, cooking facil., priv. bath & entr., $160/month, incl. util. 735-8268.

HOUSE: Massapequa, 3 bdrm. ranch, fin. bsmt., 1½ bath. carp., air cond., swim. pool, lrg. fenced yd., xtras, conv. to shop. & schools, $390/mo. w/option to buy. 799-1360.

HOUSE: Rego Pk., Queens, gar., fin. bsmt. option to buy. 212-HA 6-6753.

ROOM: Lrg., furn., pvt. bath, indry., kit. & TV privil., gentleman pref., $100/mo. 671-4083, after 6 p.m.

Car Pool

N. BABYLON: Deer Park Ave. & S.S. Pkway., to Plt. 6 or 7, 8-4:30. 587-8158.

CENTERPORT: Little Neck Rd. vic., to Plt. 15, 8:12 to 4:42. 757-1733.

Ride Wanted

AMITYVILLE ST. E.: Islip Terr. to Grumman, 7:30 to 4 p.m. 581-6544.

HENDRICKSON AVE.: 1565 nr. Grove St. N. Merrick, to Plt. 5, 7-3:30 p.m. Peter Edwards, Ext. 3717.

COPIAGUE: To Plt. 3, 7:30 - 4 p.m., will pay. 842-0591.

BELT PKWAY.: To Bethpage, 8:30-5 p.m. Or join pool. CL 6-0413.

FAR ROCKAWAY: 5 towns area to Plant 1, 7:30 to 4 p.m. 212-FA 7-1495.

BOHEMIA: To Plt. 25, 8:12 - 4:42 p.m., urgent. Ann, 589-2624.

Wanted

PONY CART: For Welsh pony, preferably 4 wheels. Bruce Hausser, Ext. 9492.

TRAINS: Lionel & Amerisan Flyers, any age or cond., also cast iron toys. OR 8-2518.

BICYCLE: Boy's 10 spd., good cond. 862-8284.

CAR: '68-'71 Mercury Montego or Monterey, 4-dr., auto. trans., radio, heat., fac. air cond., fully equip., owned by pvt. party. 433-8708.

SHOP MANUAL: For '65-'66 Mustang. AN 6-2997.

TRAINS: Old elec., Lionel or Amer. Flyer, small or lrg. sets, pay cash. JU 4-6771.

TIRES: VW bus, 735-14, reg. & snows. 724-7015.

NOZZLES: Used & old gas. serv. sta. type. 621-6989, after 5 p.m.

ENGINE: Chevrolet, 6 cyl. 230 or 250 displace., '63-'72. HA 1-0674.

ROOMMATE: Mature, young woman to share apt., Hicksville area. OV 1-5526, after 6 p.m.

For Adoption

PUPPY: Small female, black, 8 mos., all shots, spayed, hsebrken, good w/child. 935-3154, after 5 p.m.

For Sale

CUTLASS: '68 Supreme conv., 350 cu. in., 3-spd., Hurst shift, console, bkt. seats, pwr. steer, AM/FM, 8 track stereo tape deck, $900, or best offer. 475-0730, after 6 p.m.

CHEVY: '69 Impala, custom 2-dr. hdtop., radio, heat., air cond., 8 cyl., snows, 25,000 mi., $1,595. 472-3264.

CORVETTE: '60 w/'62 back, body in blk. primer, stock, 327 - 365 hp, headers, thrust side exhausts, Hurst 4-spd., new plush fur & leather int., 4:11 posi rear, new tires, air shocks, 2 tops, tach., nv. raced, xtras, $1,900. MY 4-0758.

OPEL: '69 Kadett, 4 cyl., 4-spd., $750. 242-2110.

For Sale

PLYMOUTH: '70 Road Runner, 383 cu. in., Torqueflite trans., xtras, $1,900. 661-3578.

FIAT: '70, 850 eng., new bks., clutch, starter & top, 23,000 mi., $700. 364-2016.

CABIN CRUISER: '67 Trojan, 24 ft., sleeps 4, 165 hp interceptor, new exhaust manifolds, trimtabs, bow lights, approx. 150 hrs., xtras, ask. $3,500. 588-1339.

BOAT: Motor & trlr., 14 ft. fbgls., 28 hp Evinrude, tilt trlr., top, gas can, anchor, windshield, $475. 271-9097.

BOAT: '66, 15 ft. Thompson, just refin., 40 hp Sea King, '66, used one season since maj. overhaul; tilt trlr., 2 gas tanks, anchor, fire extinguish., $450. HR 2-1568.

BOAT: '60 Shoup Princess otbd, 18 ft., 50 hp, '66 elec. start Mercury, fully equip., two 6 gal. tanks, new summer cover, incl. side curt., $900. PY 8-6382.

TIRES: 650x13 w/w, 1 brand new, $10; 2 snows, used 1 winter, $15; 4 reg. w/rims, 4 mos., $35. 587-8158.

MISC.: 80 cc Yamaha, '67, $150, 6-man raf w/motor mount, used 1 season, $65; heavy brass andirons for firepl., $20; 20 in. bicycle, $20; rotary lawnmower, 20 in., $20. CH 9-4884.

CAMERA: Polaroid, Model 210, color or b&w, w/flash & carry case, $30. 587-4307.

CAR PARTS: Plymouth-Dodge, heater, tail lights, '65 Plym. racing slicks on rims, $40; Edlbrook manifold for 383 c.i., 500 cfm, 2 bbl headers, '62-64 Chrysler products, xtras. 212-347-6516.

CAMPER: Delray truck, 10½ ft. w/Ford F250 camper truck, fully self cont., sleeps 5, $3,600. MO 9-6977.

MOTORCYCLE: '70 BSA, 7,000 mi., lightning blue & chrome, tires, hi rise bars, helmet. WE 1-7667.

MOTORCYCLE: '72 Honda, model CB45, 8 mos., equip., $850. M) 1-5248, after 3 p.m. MO 1-5248.

RAMBLER: '62 Amer. standard trans., ask. $100. 667-3285, after 4 p.m.

TIRES: New, 13, 14, & 15 in., reason. 212-525-1768, after 3:30.

FISH TANK: 10 gal., nat. rock lndscpd., 6 lbs. gravel, lg. Supreme motor filt., clean & filt. access., $15. 669-2339.

MISC.: Pwr. mower, firepl. set, porch swing, assort. chests, rugs, beds, lamps, air cond., fbgls. dinghy. 567-1121, after 4:30 p.m.

TYPEWRITER: Olympia elec., full size business, $150. 922-3839.

MISC.: Kenmore washer (coppertone); Sears basebd htr., 1650 w.; 50 ft. snow fence; car-bed carriage; small desk; (4) bookcases; Col. sofa bed; two lawnmowers. 757-7047.

JACK: Bi-pod bumper, heavy duty, 2 ton cap. WE 5-3645.

TYPEWRITER: Elec. port., Smith Corona 250, ask. $150. 281-6957 before 2:30 p.m.

POOL TABLE: Sears 7 ft., flakebd. top, 3 sticks, balls, wall stick rack, extras, $30; tire rims, two 13 in. 4 hole, Corvair. MY 4-6791.

SNOW TIRES: 2 Sears Allstate w/rims, 4 mount. holes for Falcon, 650x13, $20. PE 1-9032.

FISH TANK: 10 gal., incl. Metaframe parts, SS tank, wr. iron stand, Hush I pump, tubing, corner filt., reflect., hood, htr., gravel, ornaments, $20; boy's 20 in. bike, blk., rear basks., $12. PY 6-1108.

WHEELS: 8x25x14, two, Chevy, ask. $10. MA 1-5021.

JACKET: Burnt orange size 5, fully lined tailor., $30. 921-8194.

GOLF CLUBS: Wilson, 3 woods, 7 irons, new grips, $40. 266-1497.

For Sale

SKI BOOTS: Two pr. man's size 10½, $25 & $10. 921-2127, evgs.

VEGA: '71, green 2 dr., $1,450. 289-4863.

PONTIAC: '69 LeMans, pwr. steer, air cond., R&H, custom int. w/bkt. seats, auto. console, tape deck, green w/blk. int., low mileage, $2,100. 826-2460.

AMP.: Stereo, Harman-Kardon, model A500, 50 w, w/2 Jensen spkr. sys., $45. 928-1043.

MIRRORS: Match., 20x32, plastic star design nail head in upper, outer corner, comp. w/top & bottom brackets, $25 for pr. IV 5-1315.

ORGAN: Spinette, Farfisa, '71, walnut, xtras, $375. 727-7130.

PROJECTOR: Slide, headliner, Bell & Howell manual, model 708 ExM, used 4 times, $20. D. Ruland, Ext. 3369.

MISC.: Black seal coat, size 40, $35. 212-FL 8-8788.

OVEN: 40 in., white GE 4-burn. range, 3 stor. drawers, $75. 293-8896.

POODLES: Champ sired, miniatures, AKC, 4 females, reason. 798-7847.

ICE SKATES: Men's Dadust hockey, size 9, $10; lady's Double lace ski boots, size 9m, $25. MO 1-3471.

KONICA: 200m zoom lens, 80-200/3.5, auto. hexanon w/case, filter, sunshade, pistol grip, must sell, $250. 724-2496.

WATCH: Lady's 21 jewel Bulova, 14k gold case, 1 yr. guar., $37.50. FR 9-7421.

CARRIAGE: Biltrite coach, green & wh., $35. 732-5954, after 6 p.m.

CARRIAGE: Biltrite, $10; crib, McGraw Edison; fire eng., baby eat. table, reason. 692-8267.

HOUSE: Ronkonkoma, 60 ft. 9 rm. ranch, 100x200 ft. wood. lot, fully lndscpd., fenced, w-w, gar, full bsmt., xtras, $39,990. 585-4634.

HOUSE: Islip Terr., new colonial, 4 bdrm., 1½ bath, den, liv. rm., din. rm., kit., lndry., gar., plot 80x190, new s/s, new rugs, patio, lndscpd., nr. schools, shop., $40,500. 666-4076.

RANCH: Sprawling, 7 rm., liv. rm., formal din. rm., eat-in-kit., 3 bdrm., full bsmt., 1½ gar., new carp., air cond., lrg. patio, lndscpd. on ½ acre, xtras, prime area of N. Babylon, $42,000. 587-2195.

RANCH: Ridge, 3 bdrm. custom built, approx. 1 acre, gar., fin. bsmt., 1½ bath, 15 min. from Calverton plts., $31,500. 924-3699.

HOUSE: Massapequa/Plainedge, conv. to shop. & school, ranch, 3 bdrm., fin. bsmt., 1½ bath, gar., ¼ acre, fenced, swim. pool, pnld., w-w, s/s, air cond., appli., $39,000, option to rent. 799-1360.

RIMS: Two 14 in. Pontiac, best offer. 249-1641.

HOUSE: Amityville, 2 bdrm. col., 1½ bath, spacious kit., din. & liv. rm., firepl., dbl. gar., full bsmt., new furnace, $30,500. 264-0872.

HOUSE: Islip Vill., 3 bdrm. ranch on treed half acre, Bayberry Pt. area S. of Montauk Hwy., mod. kit., appli., lrg. liv. rm., din. area, den w/firepl., lrg. playrm. w/pnld. cathed. ceiling, deck, 2 full bath, fully lndscpd., schools, $45,000. 581-0333.

HOUSE: Rockledge, Fla., 3 bdrm., foyer, lrg. sunken liv. rm., form. din. rm., fam. rm., 2 bath, 2 car gar., cntrl. heat & air cond., lrg. closets, carp., drapes, xtras, $31,500. 305-631-1546, after 5 p.m.

FORD: '69 Fairlane, 4-dr. sedan, auto., low mileage, nds. body wk., left fend., hood. & grill, ask. $500. HR 3-4732.

DATSUN: '67 sta. wag., 4-spd, synchromesh trans., new tires, bks., R&H, w/w, 40,000 mi., over 25 mpg, ask. $525. 473-7703.

VW: '67, $950. AN 1-6809.

VW: '71 Super Beetle, yellow, radio, bumper guards, undercoat., 18,000 mi., still under warr., $1,800. 842-3836, evgs.

For Sale

FURN. SET: 3 pc. wicker. settee. arm chair rocker, $80 firm. Nikki Wright, Ext. 1935.

CONSOLE: Dumont, 23 in. b&w, pix tube, 1 yr., Early Amer. cabinet, dual spkrs., bass & treble controls, auto. brightness & contrast sw., record player input, tape recorder output, $50. 543-2423.

MINI BIKE: Rupp Scrambler, w/helmet, ask. $150. HA 7-3187.

PROJECTOR: Bell & Howell 35mm slide, 300 w. manual 4 in., f3.5 coat. lens. 9 trays, $25; Argus A4 35mm camera, f3.5, 44mm coat. Sintar lens, case, flash gun, light meter, $20. PI 1-2848.

OSCILLOSCOPE: EICO model 460, fact. wired, probe & Heath electronic switch, $125. 489-9687.

HOUSE: Commack, col., brick & wood cedar fr., 8 rms., 4 bdrm., lrg. eat-in-kit., din. rm. 2½ bath, 2 car gar., lrg. patio, full bsmt., ¼ plus acre, corner lot fully lndscpd., w-w, s/s. bsbd. heat., wash. & dry., dishwash., $46,000. 543-0895.

HOUSE: S. Farmingdale, 6 rm. ranch, s/s, carp., firepl., air cond., dishwash., attach. gar./auto. opener, 22 ft. above-ground pool, patio, 2 rm. cabana. 63x175, $34,000. 249-5084.

MOBILE HOME: 24x54, 3 bdrm., utill. rm., 1½ bath, lrg. liv. rm., din. rm., eat-in-kit., lrg. fenced yd., 2 stor. sheds, Riverhead trlr. pk., $8,500. 727-0139

SNOWS: Two F70x14, mobil fbgls. belted, used 2 seasons, $13 ea. or 2 for $22. 757-2046.

WHEELS: Dodge, 13 in. 5 holes; three 14 in. 5 hole; 1-600x16, 4 ply tire, new, $10; two 915x15 snows, used, $10. 884-0297.

HOIST: 1 ton cyclone differential chain, new, $75; 1 HD self prim. centrifugal water pump, gasoline, approx. 5,000 gal/hr, comp. suction & exh. hose, used, $75. 212-845-7846.

TRLR.: '71 Apache Mesa, solid st., used 3 times, 12,000 BTU heat., wndw. awnings, din. canopy, elec. bks., spare tire, water hook-up, $1,300. MY 4-5814.

CHEVROLET: '66 CIO custom pick-up truck, R&H, 250 cyl., 3-spd. on fl., ask. $950. 757-4838.

BED: Antique pine, dbl., Drake Smith collect., $65. 265-6208.

DIN. RM. SET: Jr., blond mahog., 42 in. china closet, tbl. w/1 leaf, 4 chrs., $120. 586-3897.

SLIDE PROJECTOR: Airquipt semi-auto. 35mm, tks. 100 slide circular & 40 straight mag., $15. 747-7152.

BEL AIR: '65, 2 dr., 6 cyl. auto., chrome reverses, new tires incl. snows, radio & cass. play., $400. HR 2-0571.

HI-FI EQUIP.: 70 watt ampl., 4 spd. Garrard turntbl. (stereo), FM tuner EICO, 12 in. spkr. in 18x21x33 high cab., $60. PY 6-5196.

MISC.: Dog house, insulated, for med. lg. dog, $30; 3 ft. high 100 ft. long turkey wire, $25. 588-6364.

MOTORCYCLE: '69 Yamaha 250cc, cissy bar, crash bars, hi-riser handlebars, new brks., $450. Joe. 587-1014.

FURNITURE: Barrel back tapestry chair, $25; drum tbl., $15. 931-5229.

STA. WAGON: '67 Custom Ford, white w/red int., new alt., batt., exhaust syst., starter, recently tuned, snows, w/w, low mileage, $650. Vin, 666-4076.

HOUSE: Cape 7 rm., 4 bdrm., 2 car gar., patio, breezeway, fin. bsmt., Massapequa, $37,500. SU 1-4321, after 5 p.m.

PUPPIES: Welch terr., 9 wks., wormed, AKC, shots, male. 423-3596.

PUPPIES: German shep., AKC, lrg. boned, import., champ. bred, sire & dam, obedience titles, pup shots, fully guar. 732-3552.

MISC.: Shaker commode & oval pedestal tbl; round oak tbl; lady's ice skates, new, size 6. Volvo, '67 sta. wag. 286-9334.

DEPTH INDICATOR: Fish locator, Herter, 120 ft., port. or perm. mount, ask. $45. 589-5988.

COUCH: 1 Danish, marble tbls. attach., 2 sets slip covers, 2 chrs., $50. 732-7346.

WATER TANK: 120 gal., glass-lined, jet pump & 1 hp motor, 5 yrs., ask. $100. 265-8177.

HOUSE: Oakdale, 5 bdrm. hi ranch, din. rm., eat-in-kit., fam. rm., patio, 1½ bath, w-w, s/s, attach. gar., appli., $1,050 taxes, $35,000. AN 5-7252.

IMPALA: '62 4 dr. hdtp., nds. better tires, new water pump, carb., seat cov., motor nds. work, $95. 271-9758.

CONDOMINIUM: Lido Beach, grd. floor of 2-story garden apts., elec. heat, pvt. beach & pool, 2 bedrm., eat-in kitch., 1½ bath, air-cond., s/s, all appli., patio, lg. lndscpd. fenced-in yd., low maint, $33,000. 431-8077.

For Sale

TIRES: Snows, radial, stud., 165 SR 13, Semperits, 4,00 mi., $60. 569-2209.

ORGAN: Thomas Artiste, 75 w electron., dbl. keyboard, swell & great foot pedals, expression pedal, func. ctrls., 9 registr. bench & books, $350. 864-6859.

DODGE: 440 sta. wag., 9 pass., '63, std. shift, 318 eng., $195. 724-2610.

LAWNMOWER: 21 in., Toro Sportlawn, high cut, & Glorion fert. spreader, $80; 6 pc. din. rm. set, blonde wood, formica top tbl., 4 chrs., vhina closet, $85. 261-0497.

MISC.: Reducing lounge, $25; aquariums, 15 gal. w/stand & equip., $15; other sizes; 1920's oak server, $25; TV, b&w, 15 in., $20. 271-5796.

PORT. BAR: Room divider, wal. formica top w/blk. vinyl front, 42x48x18, two match. stools, $45. 822-3064, after 5 p.m.

GRINDER: One bench, brand new, $25; 1 Dwell-tachometer, ask. $25. 884-7153.

TABLE SAW: Craftsman, 8 in. tilt. arbor, side exten., dados, ½ hp, capacitor motor, fences, guard, $75. PE 5-6168.

BICYCLE: Boy's Sting Ray, 5-spd. shift, gold & wh., sissy bar, hand bks., banana seat, w/w, $35. 483-4879, after 6 p.m.

SNOWS: 100x13 stud., on rims to fit older Darts/Valiants. 212-538-4663.

MISC.: Refrig, Hotpoint, 16 cu. ft., $35; gas stove, 30 in., $25; Sears port. snowblower, $50; business typewriter, $25; Mastercraft sabre saw, $15; 2 snows & wheels, 14 in., for '62 Chevy, $10. WE 5-0885, after 6 p.m.

TABLES: Match., walnut contemp., 1 end tbl. w/draw. & shelf, coffee tbl. w/small draw., 48 in. long, $20 for both. 598-0829.

MISC.: 38½ ft. of ¾ copper tubing, new, $27; antique pole lamp, $20; Macy port. sew. mach., $15; Kodak Brownie; Westinghouse hi-fi, $10. 585-1147.

TIRE: New orig. equip., Goodyear pwr. cushion w/w, poly. cord, 775x14 on '69 Plymouth Satellite wheel, $25. 261-1186.

MISC.: Exercycle, $35; elec. guitar, $15; guitar amp., $30; fender reverb., $15; mike, $10. 676-5583, evgs.

ITEMS: Children's, stroller, tricycle, car seat, crib, $35. 266-6877.

TRUMPET: Conn, case & all attach., $60. 264-5695.

RHYTHM ACE: Electron. rhythm section, 16 dance rhythms from rock to cha-cha, 1 yr., ask. $150. 724-3808.

POWER TOOLS: Comp. prof. cabinet maker's workshop, hand tools, jigs & fixts., supplies, etc., pkg. deal, $3,500. TU 4-8512.

MISC: Edelbrock 3 deuce manifolds for 283, 307, 327, 350 Chevy, $20; '67 Chevy 283 engine & pwr. glide trans., $65; curved disturb. for 283, 327, 350, $10; Hurst 3-spd. for Chevy, $15; two 6x14 Chevy alum. slot. whls., locks & lugs, $65. 325-0990.

CAMPER: '69, w/'69 eng. convert., pnld, sink, water tank, AC/DC, $850. Mary Ann. MO 7-1722.

HOUSE: Bayport, 4 bdrm., liv. rm., form. din. rm., fam. rm., kit., 2 bath, 100x80, walk to schools, $31,000. 472-2531.

VW: '66 Sqback., w/snows, must sell, $650. 744-2899.

VOLVO: '71 sta. wag., blue, model 1455, pwr. bks., 4-spd., low mi., AM/FM stereo, must sell, $2,500. 586-0757.

CHINA: English bone, 12 place set., brand new, $250; tires, E 78x14, 2 snows, 2 reg., $40. 914-472-6039.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

CHARLES S. PACKERT of Wire Preparation, Plant 5, died December 14 at the age of 62. He had been with Grumman for 10 years and lived on School Lane, Lloyd Harbor.

EDWARD J. GAGNE, who had been with the Company for 22 years, died December 17 at age 61. He worked in Production Control, Plant 6, and lived at 3 Dover Place, Northport.

Helping hands. Members of the Grumman Ex-Service Men's Club (women are also invited to belong) have been helping disabled veterann since the close of World War II. And this year is no exception. This group of ex-vets is shown with gift packages at Plant 28 before visiting with vets at Northport Hospital. If you want to help — and join the club — call Al Kordula, Ext. 87259. (Photo by Fred Annette)

For Sale

BOAT: 17 ft. '68 Larson, all fbgls., navy top, back & side cover, blt-in 18 gal. gas tank, 80 hp Johnson, Cox trlr., 35 spd. winch, depth find. 666-0946, after 6 p.m.

TIRES: Pair, SS Ripplewall eliminators, nv. used, with tubes, $60. MO 1-5222.

ORGAN: Electronic chord, auto. percuss. rhythm, comp. orchestra, bench, books, inc., $300; accordion, 120 bass, w/case, $75. IV 1-9746.

DINETTE SET: Grey, china closet, tbl., 4 chrs., leaf & pads, $50. WE 5-2032, after 4:30 p.m.

HUTCH: Early Amer. dk. pine, 6 ft. 6 in. x 5 ft. 5 in., 2 yrs., $375. 212-740-9870.

TURNTABLE: Garrard. w/base, model 210, 4 spd., w/cartridge, $35. LT 9-5019.

APPLI.: Sears, deluxe, avocado green; washer, gas dryer, stove, 13 cu. ft. refrig. 212-539-6070.

FIXTURES: Bathrm., yellow, tub, $30, sink, $15, tank, $15. 796-2918.

CAMERA: Prof. press, 4x5 in., Crown Graphic Pacemaker, Special w/2 sh. film holders, 4.7-135 mm Schneider Xenar lens, Copal "0" shutter, new, nv. used, 3 mos., reg. w/Graphlex Inc., $290. George, IV1-9843, after 6 p.m.

CAPRI: '71, 2,000 w/auto., R&H, radials, 23,000 mi., $1,900. 271-4593.

FIAT: '71 Spider 850, AM/FM, $1,500. 486-0465.

FORD: '68 Fairlane, 33,000 mi., pwr. steer, new shocks, bks, upper ball joints, heat. & def., 3-spd. trans., stand., $1,000. 935-9235.

FORD: '67 sta. wag., Fairlane 500, auto., pwr. steer, tires, snows, 4 new shocks, $975. 293-9392.

FORD: '65, new tires, $350. LT 9-7843.

FORD: '58 Fairlane 500, 4-dr., pwr. steer. & bks., auto. trans., new tires, snows, $250. FL 2-2811.

CHEVROLET: '63 sta. wag., V-8, auto. trans., pwr. steer., new tires, bks., H.D. shocks, ball joints, $250. 265-6819.

CHRYSLER: '67 sta. wag., Town & Country, pwr. bks. & steer, posi., roof rack, snows, auto., air cond., ask. $1,095. LI 1-2514.

OLDS: '68 Cutlass Sup., 4 spd., new clutch, tires, air cond., AM/FM, tach., xtras, 46,000 mi. 536-0604, after 6 p.m.

MUSTANG: '68 GT, 390 eng., 4 spd., Hurst, 390 gears, 780 cfm Holley, 4 bbl. dual Mallory dist., accel. coil, 5 astro mags, 4 new wide oval tires, tape deck w/6 spkrs., blus, 59,000 mi., $1,500. sacri. 541-5955.

VW: '66 Micro Bus, rebuilt eng., ask. $450. AT 3-3022.

CHEVY: '68 Malibu, 2-dr., pwr. steer. & bks., air cond., 6 w/w, snows, V-top, radio, bkt./console, $1,100. 765-5704.

MISC.: 7½ ft. sofa, $100; 4 wood. ktch. chr., $20. 588-6364.

HOSPITAL BED: Elec., 1 yr. OR 6-0659.

For Sale

MIRROR: 5 x 48 liv. rm.; 1 coffee tbl., 2 step-up lamp tbl., 293-4435.

TV: Console, B & W, 21 in., Olympic, $25. PE 5-1862.

WASHER: Maytag, top load., $50; dryer G.E., front loa., $50. 669-0549.

CHRISTMAS TREE: Scotch pine, 7 ft., 80 ornamts., 70 lts., new, $30. PI 7-2502.

PORT. WASH-DRY: Maytag, no spec. hook-up, suit. for apart., 1 yr., ask. $225. 281-6642, after 5 p.m.

STOVE: Norge, deluxe, gas, 4 burn., clock, oven timer, $25; clothes dryer, white, $25. 862-8284.

MIRROR: Plate glass plain, bevel. edge, 3 ft. 4 in. x 6 ft. 10 in., $50. FL 4-8832.

SOFA-BED: Col., goldenrod, w/stor. sect., 72" maple arms; Ethan Allen col. wing chr. w/skirt, rust print. FO 8-3883.

DIN. RM. TBL.: Oval 42x62 w/one leaf, pads, 4 chr., 42" china closet, mahogany, $200. HA 3-5399, after 5:30 p.m.

GAS RANGE: 36 in. Anderson, 4 burn., oven, broil. & well; 10 cu. ft. refrig., both for $100. 488-3767.

DINETTE: Formica, 48" tbl., 12" leaf, 6 chr., 36" china closet, $265. 473-5871.

TELESCOPE: Reflector, 3 in. mirr., metal tube, 2x Barlow lens, 3x finder; 3 eye pcs., f-4, f-9mm & sun filter, f-20mm & moon filter; 16" h. steel tripod, $20. E. Manaker, Ext. 3513.

PUPPIES: Siberian huskies, 6 wks., 3 dk. copper, 1 satin black. 921-7245.

PUPPIES: Great Dane, AKC reg., fawn blk. masked, 6 wks., uncrop., $150; cropped, $200. 757-2251.

PAINTINGS: Oil original, var. sizes and subj., hand carved frames. GE 3-7919.

BIKE: Schwinn boy's Sting Ray, 5 spd., $70; World Bok Enclyclopedia, $110; bar bells, $10; sound movie outfit, Bell & Howell Filmo-Sound, $250; sew. mach., $40. AR 1-1429.

BIKE: Boy's 20 in. Sting Ray, new banana seat & ram handles, chrome fender, $15. 589-7727.

BIKE: "Keno" man's 10 spd., $70. 212-261-8649.

SKI EQUIP.: Lace boots, lady's 8-8½ nar., $10; man's size 12 med., $10; 2 pr. lady's stretch pants, 10-12, $10 ea.; 2 pr. wood skis with cable bind., lengths 6'9", 6', $15 ea. 924-4616, after 6 p.m.

SKIS: Lady's or youth size, 1 pr. skis, boots size 6, & boot tree, $35. HA 7-7009.

SKI BOOTS: Nordica buck., size 7, $30. WA 1-3465.

SKIS: Headmaster, 205 cm., Dovre bind., $35; Henke buck. boots, 9½, $15; 52 in. poles. 271-1680.

PIANO: Baby grand, recent. tuned, inc. delivery, $375. 888-7949.

CLARINET: Wood Bflat, Rampone Milano, $68. HA 7-9683.

ACCORDION: Settimio soprani, Dick Conte mod., red & wh., 120 bass, 7 oct., $125. IV 6-8565.

For Sale

SNARE DRUM: Plus cymbal, $16. 928-0171.

GUITAR: Sekora, carry. bag, $25. GE 3-7706.

TRUMPET: Ambassador, Fullerton, Calif., $95. HA 7-9683, after 6 p.m.

CHRYSLER: '71 Newport, 4-dr. sedan, 26,000 mi., pwr. steer & pwr. disc bks., AM/FM stereo, rear wndw. defrost. 286-9404.

PONTIAC: '71 Firebird Esprit, 350 eng. turbo hydra., 3-spd., pwr. steer., fr. disc. bks., console bkt. seats, bronze w/ivory vinyl top & ivory int., 5,000 mi., $2,750. 796-3176.

VOLVO: '668 mod. 145 wag., 50,000 mi., radial tires, roof rack, air springs, best offer above "blue book". 747-7152.

FORD: '63 Galaxie sedan, std. trans, 6 cyl., 78,000 mi., nds. muffler, best offer. MO 1-0282, after 6 p.m.

OLDS: '65 Starfire, wh. w/blue int., full pwr. w/air cond., some body rot in fr. hood only, tires, $400. 589-8171.

BUICK: '69 Electra, air cond., AM/FM, rear spkr. & defrost., speed alert, vinyl roof, $2,400. 825-7363.

CORVAIR: '67 conv., auto. trans., new paint, $300. 884-2432.

FORD: '64, 2-dr., V8 eng. 766-7836, after 4:30 p.m.

T-BIRD: '70, 2-dr., vinyl top, air cond., full pwr., $2,600. 486-0465.

MUSTANG: '65 Fastback, 6 cyl., R&H, auto. trans., console, gold w/wh. int., $595. LT 9-6588.

plane
GRUMMAN
news

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Lambert, Kasten, Carlough pocket top suggestion awards

It was a big bag of United States Savings Bonds that the Grumman Corporate Suggestion Awards Committee bestowed at its most recent awards evaluation meeting. Top money man was Vince Lambert, with $1,050 for one suggestion and $625 for another, for a total of $1,675. An award of $1,400 went to Joe Kasten, and $1,100 to Wain Carlough. Two men, Frank Hackett and Harry Hicks of Templates and Hydraulics respectively, in Plant 2, shared $1,300 in bonds. The overall award money this time reached $11,275, with the F-14 Program, particularly, benefitting in many ways from the new ideas.

Top money-man Lambert is a leadman in Sub-Assembly, F-14 Program, Plant 1. He found a way to cut down on "physical congestion of personnel" (too many people working in too small a space) on the final assembly fixture and speeded the work by pre-assembling 62 details. His other award was for coordinated tooling on missile covers, a timesaver.

Vince Lambert

Wain Carlough

Joe Kasten

Old hand at ideas

Lambert is a seasoned idea man, with four previous Savings Bond awards before this. His extra-curricular interests, which don't have much time for blossoming because of long hours on the F-14, revolve around his family: Jill, his wife; daughter Laura, 8; Richard, a Grumman Scholar in 1959, who worked at Grumman for two years after graduation from Rensselaer, now with Syracuse Research; Joseph, with Grumman since 1958, in Project Planning, Plant 5. "What will you do with your award money?" "I bought my wife a new car," he replied.

Joe Kasten, leadman in Fuselage Sub-Assembly, Plant 1, came to Grumman right from the Army 15 years ago. Since then he's won three or four bond awards and now adds $1,400 more to the till. His money-saving suggestion was to rework the dollies used for moving the F-14 fuselage module so that final assembly could be done on the spot without moving the module. The Tooling department was saved from making another fixed jig, and many hours are saved.

Joe's plans for his award money center around his wife. "Maybe half of it for travel, maybe one of those four-day Las Vegas tour packages. And my wife wants some new furniture," he said.

Invest in antiques

The Kastens think in terms of old furniture, actually. They go antiquing in upstate New York, getting a great boot out of attending auctions and finding old furniture that Kasten then refinishes. His latest investment was an oak desk. He and his wife, Edith, and sons Joseph 12, and Daniel, 5, live in Ronkonkoma and have a small place in the Catskills.

Wain Carlough's suggestion is one of those happy brainstorms that is so straightforward it has to be tried to be appreciated. He merely eliminated a separate form that was duplicating information on every fiberglass shop work order. Took a bit of doing to sell the idea, because the natural thing to say is, "We have to do it this way—it's in the specs." Once approved, however, it saved thousands of dollars in printing, handling, s t o r a g e, and duplication charges. The necessary traceability information is merely pre-printed on the back of each form accompanying the fiberglass shop work order, as Carlough recommended.

Carlough came to Grumman from the Army eight years ago. He is assigned to Fiberglass, Plant 27, Wyandanch, goes to Suffolk Community College evenings, and hopes by next year to have a Bachelor's degree in Business Administration. He says it's a little difficult to explain his status because he's had a year in Grumman's Advanced Skills Training Program and as a result, although assigned to Production, he's available to be plugged into any situation where his ideas might be useful to help solve a problem. He lives in Holbrook with his wife, Irene, and daughter Colleen. By now there might be a little newcomer to the family. (P.S., there is. Another daughter.)

New money. Recently, Grumman Aerospace Corporation deposited $100,000 in a different kind of local bank—the Vanguard Bank, Long Island's first interracial bank. On hand to see the money change hands were (L to R): Harry Volz, Lloyd Lee, Dr. Jessie Pone, Bill Voorhest, Dr. Arthur Risbrook, Jean Esquerre, Dr. H. J. Hendler, Harold Trent (Chairman of the Board, receiving check from Esquerre), Pat Cherry, and Manuel Barfield.

More suggestions

Frank Hackett of Templates, Plant 2, and Harry Hicks, leadman in Hydraulics, Plant 2, shared $1,300 for suggesting a universal hydraulic lines tube-end cutting saw. William R. Mytko of Final Assembly, Plant 1, received $650 for an idea to reduce installation time on F-14 pyro lines.

Stephen Congro and John Adrian, both of Joining F-14, Plant 1, shared $1,100 for reducing assembly and electrical installation time.

An award of $425 went to Rosario M. Strazzeri of Sub-Assembly Fuselage, Plant 1, for change in longeron installation on the F-14.

Other awards were:

$375: Ralph T. Warren, Final Joining, Plant 1.

$325: James Blake and to Rocco Sisto, both of Electrical Fabrication, Plant 1.

$275: Francis N. Loiacono, Fuselage Joining, Plant 1, and to William Palmer, Measurements Standards Lab, Plant 6.

$150: Joseph Cinquemani of Sub-Assembly and Charles J. Randazzo of Fuselage Sub-Major, both Plant 1; Paul M. La Penta, Instrument Aircraft Test, Plant 5; Michael W. Vrabel, Final Assembly, Plant 36.

$125: Frank Carroll, Drafting Service, Plant 34; Thomas Dlugaski, Sub-Assembly, Plant 1; Nicholas H. Evangelides, Crew Loading, Industrial Engineering, Plant 6; Joseph Nobile and Raymond Sentz, both Requirements Planners, Plant 30.

$100: John W. Cunneen, Requirements Planning, Plant 30; Roy Johnson, Electrical Fabrication, Plant 5; Steve Kanas and Frank Colarossi, Material Accounting, Plant 30.

$75: William M. Muller, Machine Parts, Plant 30.

$50: Robert Schlosser, William Holmes, Thomas Telera, and Peter Vitale, all Requirements Planning, Plant 30; Elfriede Merten, Flight Safety & Support, Plant 7; Steve Schoenberg, Instrument Aircraft Test, Plant 5 (summer student).

$25: Frank Disponzio and Redmond Scott, both Machine Parts Purchasing, Plant 30.

Back on schedule

Plane News will be back on regular schedule — second and fourth Friday delivery — in January 1973. You'll be getting Plane News January 12 and 24 next month.